

# CITY OF CORONA CISCO NETWORK INFRASTRUCTURE REFRESH REQUEST FOR PROPOSALS (RFP) 18-001CG ADDENDUM NO. 1

July 20, 2017

Administrative Services Department - Purchasing Division
400 S. Vicentia Ave., Ste. 320
Corona, CA 92882

Addendum No. 1 to Cisco Network Infrastructure Refresh, RFP 18-001CG is issued to respond to "Requests for Information" as submitted by consultants via written requests as well as amend Section V. Scope of Work of RFP 18-001CG.

By this reference, all provisions and attachments to this Addendum No. 1 are hereby incorporated into RFP 18-001CG. Prospective consultants shall account for all provisions pursuant to this Addendum No. 1 in submitting their proposal. Each contractor shall acknowledge receipt of this Addendum No. 1 in their proposal in the spaces provided therein.

## A. Questions and Answers:

#### 1. Question:

"Please confirm any other equipment besides listed under "Implementation Services" (Catalyst 6807s, Catalyst 681", APIC-EM, UCS 510B, and reconfiguration of existing 5548s on Page 15 of the RFP will require professional services. This includes the integration services of listed equipment to non-listed equipment?"

#### Answer:

Confirmed – Only equipment requested in the implementation services section of the RFP is needed.

#### 2. Question:

"It is noted in the RFP provided equipment list that City has only asked for a single ISR4331 router and a single Fiber Interconnect Fl 6332. Please advise if

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City will require redundant/backup solution."

#### Answer:

The City requires one ISR4331. The FI 6332 SKU is a bundle and comes with two FI 6332 devices.

## 3. Question:

"Will City provide staging area for initial burn-in and testing of all equipment? or vendor will require to rack/stage, burn-in each equipment in its designated area?"

#### Answer:

The City can accommodate either scenario.

# 4. Question:

"Please provide high-level drawing for the existing and proposed designs?"

## Answer:

The network drawings are attached to the end of this addendum as "Exhibit 1".

## 5. Question:

"Will City require additional consulting services for an existing and/or new network design or will take directions from City IT personnel as listed? These include, and are not limited to IP Scheme, VLAN, best practices guidelines etc."

#### Answer:

The City does not require additional consulting services. The equipment that is being implemented will be done so using best practices as reviewed and agreed on by the City Information Technology department.

# 6. Question:

"We offer end-to-end support such as design, implement, install, troubleshoot, day one [day two support, and knowledge transfer. Please advise?"

#### Answer:

Provide implementation services as requested in the RFP.

"For APIC-EM, City has asked to provision and support all catalyst switches under Software-Defined Network Architecture. Please note that APIC-EM can support many features such as

- o Network Information Database
- o Network Topology Visualization
- o Plug & Play Applications
- o Cisco Intelligent WAN (iWAN)
- o Enterprise Service Automation (ESA)

Please elaborate what SDN feature/services will City require to provision and support?"

#### Answer:

We want profile and template configuration support to manage the configurations on the switches through APIC-EM.

# 8. Question:

"For Cisco UCS-5108, will City require migration support of existing servers (Physical/Virtual) server-farm, and SAN services?"

#### Answer:

We do not require any migration support of existing servers or SAN services. The re-configuration of our Nexus 5548's is the only requirement. The 5548's must be configured so our existing VMware Cluster continues to function and the new UCS-5108 can communicate with the datacenter network to include our existing Vmware cluster and SAN storage.

#### 9. Question:

"City has requested SFP-IOG-LR, and SPF-IOG-SR in the quantity of 146 and 18 respectively. Can City confirm if the existing fiber run is ready to support 10Gb and meets distance requirements"

#### Answer:

Our fiber will support 10G – it is currently running 10G.

"Will City provide approximate distance between the locations where vendor will be implementing services. Short Range (MMF) can support up to 300-400-meter link lengths, but would require 2000 MHz (OM3) and 4700 MHz (0M4) respectively"

#### Answer:

The distance between the 5 facilities ranges from 500' to 1 mile.

#### 11. Question:

"Can City provide the exact port count for 1/10Gb connectivity between equipment in the same and/or different locations?"

#### Answer:

Only the C6807 and C6816 switches will be within twinax range at the various locations. Use of twinax cables to connect these switches in the vss configuration is acceptable (1 port per C6807 and C6816 switch).

## 12. Question:

"Equipment in the same rack and in the adjacent rack may qualify for Cisco TWINAX cable technology up to 10 meters. The TWINAX will be a cost-effective solution

Are there any existing access points? If yes, what type of models, what is the quantity of access points?"

#### Answer:

We have 54 access points.

51- 1131AG-A-K9

2 - 3702E-A-K9

1 - 3602I-A-K9

# 13. Question:

"Please provide a high- level Visio and technical documentation related network equipment and the number of sites"

#### Answer:

The technical documentation of related network equipment is attached to the end of this addendum as "Exhibit 1".

"Will City require onsite presence of an engineer at each location working remotely will be allowed for smaller sites?"

#### Answer:

Onsite presence is required for the implementation services requested.

# 15. Question:

"Please clarify if Vendor will be providing integrating assistance with nonCisco equipment."

## Answer:

Vendor will not be providing integrating assistance with non-Cisco equipment.

## 16. Question:

"Will it be a flash-cut or phase migration of users and services?"

#### Answer:

It may be a combination. Whichever has the least impact to business operations.

## 17. Question:

"Any other training requirements other than knowledge transfer?"

#### Answer:

No.

#### 18. Question:

"Any additional post-cutover support other than the standard day 1/day2 support?"

#### Answer:

No.

## 19. Question:

"Contingency requirements when working with the third-party vendor?"

#### Answer:

All third-party vendors shall be disclosed to the City for any work performed under this Scope of Work and their responsibilities towards contract performance must be defined in the prospective vendor's proposal.

# 20. Question:

"Please provide install locations for 6807 and 6816 pairs."

## Answer:

City Hall 400 S. Vicentia Ave.

Corona, CA 92882

Police Department 730 Public Safety Way Corona, CA 92880

Department of Water and Power 755 Public Safety Way Corona, CA 92880

General Services 735 Public Safety Way Corona, CA 92880

Library 650 S. Main St. Corona, CA 92882

## 21. Question:

"Does the city require the Access Points to be mounted?"

#### Answer:

No, the access point are not part of the implementation services requested.

"Is cabling currently in place for access points?"

#### Answer:

Not applicable per answer to previous question.

## 23. Question:

"Is the intention for AP's to be connected to mGig ports?"

#### Answer:

The City Information Technology Department will install the access points and will use mGig ports where available.

# B. City Clarifications:

a. Section III. "Scope of Work" - is hereby deleted in its entirety and replaced with "Revised Scope of Work" attached to the end of this addendum as "Exhibit 2".

Please be advised that Smartnet Services will no longer be included in this RFP.

b. "Attachment A – Price Workbook" has been deleted in its entirety and is being replaced with "Revised Attachment A – Price Workbook". This excel workbook will be available at City's website at <a href="https://www.coronaca.gov/i-want-to/rfp-posts-list">https://www.coronaca.gov/i-want-to/rfp-posts-list</a>.

Thank you,

Carlos Garcia Purchasing Specialist IV City of Corona

Exhibit 1 – Additional Technical Documentation

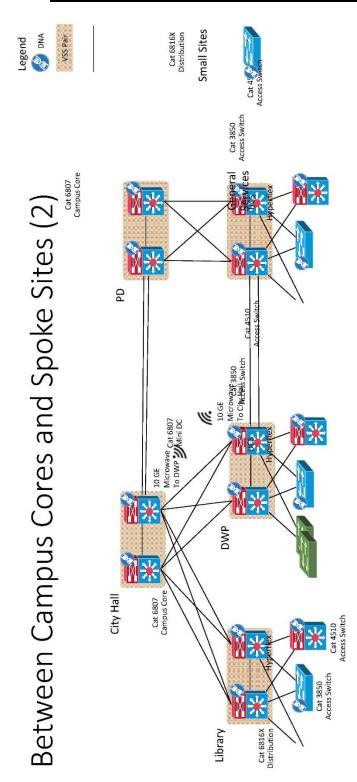
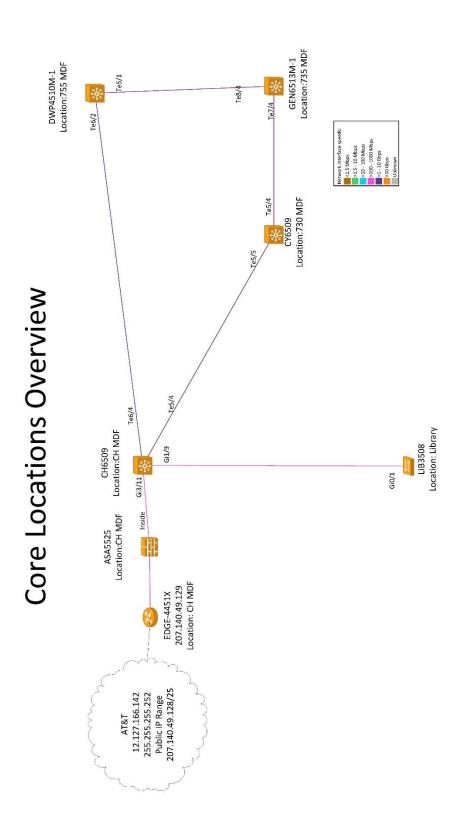


Exhibit 1 – Additional Technical Documentation (Cont.)



#### Exhibit 2

#### **SECTION IV.**

#### **REVISED SCOPE OF WORK**

The City of Corona Information Technology Department requests proposals for the equipment listed in the table and the professional services listed in the implementation services section. Partners' must contact Cisco Account Team to obtain Cisco 9k Catalyst switch skus and pricing that are not generally available. Additionally, the partner must guarantee the pricing will not change.

Cisco Account Team;

**Primary Contact:** 

Jenna Sellon, Account Manager Jsellon@cisco.com 310-413-1545

**Secondary Contact:** 

Sunny Du, Systems Engineer <a href="mailto:Sundu@cisco.com">Sundu@cisco.com</a>
408-894-4120

The City of Corona will issue a holistic purchase order to selected partner. That partner is responsible for procuring product that is available now, as well as, procuring new product as it becomes generally available.

Part Number	Description	Quantity
C6807-XL	Catalyst 6807-XL 7-slot chassis, 10RU	6
CON-SNT-C6807XLC	SNTC-8X5XNBD Catalyst 6807-XL 7-s	0
C6800-CAMPUS-CORE	Catalyst 6800 Campus Core Deployment; For Tracking Only	6
SP6TISK9-15401SY	CAT6800-VS-S6T IOS IP SERV FULL ENCRYPT	6
C6800-SUP6T	Catalyst 6800 Sup6T (440G/slot) with 8x10GE, 2x40GE	6
C6800-32P10G	Catalyst 6800 32 port 10GE fiber LC with integrated dual DFC4	6
C6800-48P-TX	C6k 48-port 10/100/1000 GE fabric enabled, RJ-45 DFC4	6
C6800-48P-SFP	C6K 48-port 1GE fiber linecard: fabric-enabled with DFC4	4
C6807-XL-FAN	Catalyst 6807-XL Chassis Fan Tray	6
C6800-XL-CVR	Catalyst 6807-XL line card slot cover	20
C6800-XL-3KW-AC	Catalyst 6807-XL 3000W Power Supply	24
CAB-7513AC	AC POWER CORD NORTH AMERICA (110V)	24
ISR4431-VSEC/K9	Cisco ISR 4431 Bundle with UC & Sec Lic, PVDM4-64, CUBE-25	1

CON-SNTP-ISR44SEC	SNTC-24X7X4 Cisco ISR 4431 UC Se	0
CAB-AC	AC Power Cord (North America), C13, NEMA 5-15P, 2.1m	2
FL-44-PERF-K9	Performance on Demand License for 4400 Series (from 500M to	1
	1G)	
FL-CUBEE-25	Unified Border Element Enterprise License - 25 sessions	1
FL-SRST	Cisco Survivable Remote Site Telephony (SRST) License	1
FL-CME-SRST-25	SRST-25 Seat License (CME uses CUCME Phone License ONLY)	1
MEM-4400-4G	4G DRAM (2G+2G) for Cisco ISR 4400	1
MEM-4400-DP-2G	2G DRAM (1 DIMM) for Cisco ISR 4400 Data Plane	1
MEM-FLSH-8G	8G eUSB Flash Memory for Cisco ISR 4430	1
NIM-2MFT-T1/E1	2 port Multiflex Trunk Voice/Clear-channel Data T1/E1 Module	1
PVDM4-64	64-channel DSP module	1
NIM-BLANK	Blank faceplate for NIM slot on Cisco ISR 4400	2
PWR-4430-AC	AC Power Supply for Cisco ISR 4430	1
PWR-4430-AC/2	AC Power Supply (Secondary PS) for Cisco ISR 4430	1
SISR4400UK9-316S	Cisco ISR 4400 Series IOS XE Universal	1
SL-44-IPB-K9	IP Base License for Cisco ISR 4400 Series	1
SL-44-SEC-K9	Security License for Cisco ISR 4400 Series	1
SL-44-UC-K9	Unified Communication License for Cisco ISR 4400 Series	1
USE-BUNDLED-PVDM	Choose to assemble the PVDM in a Voice bundle on T1/E1 card	1
USE-BUNDLED-PVDIVI	Choose to assemble the PVDIVI in a Voice buildle on 11/E1 card	<u> </u>
VG320	Modular 48 FXS Port VolP Gateway with PVDM3-128	9
CON-SNT-VG320ICV	SNTC-8X5XNBD Cisco VG320 - Modular 48 FXS Port Voice	0
SVG3XUK9-15403M	Cisco VG3X0 UNIVERSAL	9
MEM-CF-256MB	256MB Compact Flash for Cisco 1900, 2900, 3900 ISR	9
CAB-AC	AC Power Cord (North America), C13, NEMA 5-15P, 2.1m	9
HWIC-BLANK	Blank faceplate for HWIC slot on Cisco ISR	9
PVDM3-128	128-channel high-density voice DSP module	9
SL-VG3X0-UC-K9	Cisco VG3X0 Unified Communications License	9
SL-VG3X0-IPB-K9	Cisco VG3X0 IP Base License	9
SE-VOSKO-II B-KS	Cisco VOSAO II Base License	
VG310	Modular 24 FXS Port VolP Gateway with PVDM3-64	5
CON-SNT-VG310ICV	SNTC-8X5XNBD Cisco VG310 - Modular 24 FXS Port Voice	0
SVG3XUK9-15403M	Cisco VG3X0 UNIVERSAL	5
MEM-CF-256MB	256MB Compact Flash for Cisco 1900, 2900, 3900 ISR	5
CAB-AC	AC Power Cord (North America), C13, NEMA 5-15P, 2.1m	5
HWIC-BLANK	Blank faceplate for HWIC slot on Cisco ISR	5
PVDM3-64	64-channel high-density voice DSP module	5
SL-VG3X0-UC-K9	Cisco VG3X0 Unified Communications License	5
SL-VG3X0-IPB-K9	Cisco VG3X0 IP Base License	5
52 1 55/10 II B 115	Sister Contain Busic Electrica	
AIR-AP3802I-B-K9C	802.11ac W2 AP w/CA; 4x4:3; Mod; Int Ant; mGig -B (CFG)	59
AIR-AP-BRACKET-1	802.11n AP Low Profile Mounting Bracket (Default)	0
AIR-AP-T-RAIL-R	Ceiling Grid Clip for Aironet APs - Recessed Mount (Default)	59
AIR-CMX-CLD-CPA-1Y	CMX Cloud - Connect with Presence Analytics 1Yr license	59
SW3802-MECPWP-K9	Cisco 3800 Series Mobility Express software	59
	1 3.333 3333 331133 ITTOSTITY Express software	1 33

APIC-EM-SW-K9=	Cisco APIC-EM Controller Software 1.0	1
CON-ECMU-APICEKSW	SWSS UPGRADES Cisco APIC-EM Controller Software	1
APIC-EM-APL-R-K9=	Cisco APIC EM Controller Appliance 10C-64G-2T	1
CON-SNT-APICEMAK	SNTC-8X5XNBD Cisco APIC EM Controller Appliance 10C	0
APIC-EM-SW1.3-K9	Cisco APIC-EM Controller Software 1.3	1
CAB-N5K6A-NA	Power Cord, 200/240V 6A North America	2
PI-UCS-CPU-E52650D	2.30 GHz E5-2650 v3/105W 10C/25MB Cache/DDR4 2133MHz	1
PI-UCS-M-1X162RU-A	16GB DDR4-2133-MHz RDIMM/PC4-17000/dual rank/x4/1.2v	4
PI-UCS-H900GI2F106	900GB 6Gb SAS 10K RPM SFF HDD/hot plug/drive sled mounted	4
PI-UCSC-PSU1-770W	770W AC Hot-Plug Power Supply for 1U C-Series Rack Server	2
PI-UCSC-MRD12G-1GB	Cisco 12Gbps SAS 1GB FBWC Cache module (Raid 0/1/5/6)	1
PI-UCSC-MRAID12G	Cisco 12G SAS Modular Raid Controller	1
PI-UCS-SD-32G-S	32GB SD Card for UCS servers	2
UCS-SP-5108-AC3	UCS SP Select 5108 AC2 Chassis w/2304 IO, 4x SFP cable 3m	1
UCSB-PSU-2500ACDV	2500W Platinum AC Hot Plug Power Supply - DV	4
CAB-C19-CBN	Cabinet Jumper Power Cord, 250 VAC 16A, C20-C19 Connectors	4
QSFP-H40G-CU3M	40GBASE-CR4 Passive Copper Cable, 3m	4
N20-FAN5	Fan module for UCS 5108	8
N20-CBLKB1	Blade slot blanking panel for UCS 5108/single slot	8
N20-CAK	Accessory kit for UCS 5108 Blade Server Chassis	1
UCSB-5108-PKG-HW	UCS 5108 Packaging for chassis with half width blades.	1
N01-UAC1	Single phase AC power module for UCS 5108	1
N20-FW014	UCS 5108 Blade Chassis FW Package 3.1	1
UCS-IOM-2304	UCS 2304XP I/O Module (4 External, 8 Internal 40Gb Ports)	2
UCS-SP-B200M4-BC1	UCS SPSelect B200M4 Hi-Core1w/2xE52683v4,8x32GB,VIC1340	3
UCS-SP-B200M4-B-C1	Not sold standaloneB200M4Hi-	3
	Core1w/2xE52683v4,8x32GB,VIC1340	
CON-SNT-B200BC1	SNTC 8X5XNBD, Not sold standaloneB200M4Hi-	0
	Core1w/2xE52683v4,	
UCS-CPU-E52683E	2.10 GHz E5-2683 v4/120W 16C/40MB Cache/DDR4 2400MHz	6
UCS-MR-1X322RV-A	32GB DDR4-2400-MHz RDIMM/PC4-19200/dual rank/x4/1.2v	24
UCSB-MRAID12G	Cisco FlexStorage 12G SAS RAID controller with Drive bays	3
UCSB-MLOM-40G-03	Cisco UCS VIC 1340 modular LOM for blade servers	3
UCSB-LSTOR-BK	FlexStorage blanking panels w/o controller, w/o drive bays	6
UCS-M4-V4-LBL	Cisco M4 - v4 CPU asset tab ID label (Auto-Expand)	3
UCSB-HS-EP-M4-F	CPU Heat Sink for UCS B200 M4/B420 M4 (Front)	3
UCSB-HS-EP-M4-R	CPU Heat Sink for UCS B200 M4/B420 M4 (Rear)	3
UCS-SD-32G-S	32GB SD Card for UCS servers	6
UCS-SP-M32-RVA	32GB DDR4-2400-MHz RDIMM/PC4-19200/dual rank/x4/1.2v	24
UCSX-TPM2-002	Trusted Platform Module 2.0 for UCS servers	3
UCS-SP-FI633216-2X	UCS SP Select 2 x 6332-16UP FI	1
UCS-SP-FI6332-16UP	(Not sold standalone) UCS 6332-16UP FI/8 QSFP+,4SFP+	2

	1	
UCS-PSU-6332-AC	UCS 6332 Power Supply/100-240VAC	4
CAB-9K12A-NA	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America	4
QSFP-H40G-CU3M	40GBASE-CR4 Passive Copper Cable, 3m	8
QSFP-40G-SR-BD	QSFP40G BiDi Short-reach Transceiver	8
DS-SFP-FC16G-SW	16 Gbps Fibre Channel SW SFP+, LC	8
N10-MGT014	UCS Manager v3.1	2
UCS-FAN-6332	UCS 6332 Fan Module	8
UCS-ACC-6332	UCS 6332 Chassis Accessory Kit	2
C6816-X-LE	Cisco Catalyst 6816-X-Chassis (Standard Tables)	4
CON-SNT-C6816XLE	SNTC-8X5XNBD Cisco Catalyst 6816-X-Chassis Standard	0
S684ISK9-15401SY	Cisco CAT6840-X IOS IP SERVICES FULL ENCRYPT	4
C6800-CAMPUS-DIST	Catalyst 6800 Campus Distribution Deployment; For Tracking O	4
C6840-X-750W-AC	Power Supply AC-750W	8
CAB-9K12A-NA	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America	8
	3,	
WS-C3560CX-8XPD-S	Cisco Catalyst 3560-CX 2 x mGig, 6 x 1G PoE, IP Base	3
CON-SNT-WSC356CD	SNTC-8X5XNBD Cisco Catalyst 3560-CX 2 x mGig, 6 x 1G	0
CAB-TA-NA	North America AC Type A Power Cable	3
PWR-CLP	Power Retainer Clip For 3560-C, 2960-C and 2960-L Switches	3
CMPCT-MGNT-TRAY	MAGNETIC MOUNTING TRAY FOR 3560-CX & 2960-CX COMPACT	3
CIVIFCI-IVIGINI-TIVAT	SWITCH	3
CNADCT DIN MANT	DIN Rail Mount For 3560-CX and 2960-CX Compact Switch	3
CMPCT-DIN-MNT	DIN Rail Would For 3300-CX and 2300-CX Compact Switch	3
SFP-10G-LR=	10GBASE-LR SFP Module (SMF) (10KM)	146
SFP-10G-LR= SFP-10G-SR=	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)	146 18
SFP-10G-LR= SFP-10G-SR= C9300-48UXM-A	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage	146 18 26
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A CON-SNT-WSC385US	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36	146 18 26 0
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license	146 18 26 0
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage	146 18 26 0 0
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NW-A	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module	146 18 26 0 0 1 26
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NW-A  S9300UK9-165	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image	146 18 26 0 0 1 26 1
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NW-A  C9300-NM-8X  S9300UK9-165  PWR-C1-1100WAC	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply	146 18 26 0 0 1 26 1 26
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NW-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2	10GBASE-LR SFP Module (SMF) (10KM)  10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage  Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image  1100W AC Config 1 Power Supply  1100W AC Config 1 Secondary Power Supply	146 18 26 0 0 1 26 1 26 26
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NM-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2  CAB-TA-NA	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply 1100W AC Config 1 Secondary Power Supply North America AC Type A Power Cable	146 18 26 0 0 1 26 1 26 26 26
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NW-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2  CAB-TA-NA  STACK-T1-50CM	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply 1100W AC Config 1 Secondary Power Supply North America AC Type A Power Cable 50CM Type 1 Stacking Cable	146 18 26 0 0 1 26 1 26 26 26 52
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NM-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2  CAB-TA-NA	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply 1100W AC Config 1 Secondary Power Supply North America AC Type A Power Cable	146 18 26 0 0 1 26 1 26 26 52
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NM-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2  CAB-TA-NA  STACK-T1-50CM  CAB-SPWR-30CM	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply 1100W AC Config 1 Secondary Power Supply North America AC Type A Power Cable 50CM Type 1 Stacking Cable Catalyst Stack Power Cable 30 CM	146 18 26 0 0 1 26 1 26 26 52 26 26
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NM-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2  CAB-TA-NA  STACK-T1-50CM  CAB-SPWR-30CM	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply 1100W AC Config 1 Secondary Power Supply North America AC Type A Power Cable 50CM Type 1 Stacking Cable Catalyst Stack Power Cable 30 CM  Catalyst 9300 48-port PoE+, Network Advantage	146 18 26 0 0 1 26 1 26 26 26 26 26 26 26 26
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NM-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2  CAB-TA-NA  STACK-T1-50CM  CAB-SPWR-30CM  C9300-48P-A  CON-SNT-WSC388PS	10GBASE-LR SFP Module (SMF) (10KM)  10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply 1100W AC Config 1 Secondary Power Supply North America AC Type A Power Cable 50CM Type 1 Stacking Cable Catalyst Stack Power Cable 30 CM  Catalyst 9300 48-port PoE+, Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port PoE IP Base	146 18 26 0 0 1 26 1 26 26 52 26 26 26
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NM-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2  CAB-TA-NA  STACK-T1-50CM  CAB-SPWR-30CM  C9300-48P-A  CON-SNT-WSC388PS  C9300-DNA-A-48-7Y	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply 1100W AC Config 1 Secondary Power Supply North America AC Type A Power Cable 50CM Type 1 Stacking Cable Catalyst Stack Power Cable 30 CM  Catalyst 9300 48-port PoE+, Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port PoE IP Base C9300 DNA Advantage, 48-port, 7 Year Term license	146 18 26 0 0 1 26 1 26 26 26 26 26 26 26 26 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NM-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2  CAB-TA-NA  STACK-T1-50CM  CAB-SPWR-30CM  C9300-48P-A  CON-SNT-WSC388PS  C9300-DNA-A-48-7Y  C9300-NW-A	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply 1100W AC Config 1 Secondary Power Supply North America AC Type A Power Cable 50CM Type 1 Stacking Cable Catalyst Stack Power Cable 30 CM  Catalyst 9300 48-port PoE+, Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port PoE IP Base C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage	146 18 26 0 0 1 26 1 26 26 26 26 26 26 26 26 26 26
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NM-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2  CAB-TA-NA  STACK-T1-50CM  CAB-SPWR-30CM  C9300-48P-A  CON-SNT-WSC388PS  C9300-DNA-A-48-7Y  C9300-NW-A  S9300UK9-165	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply 1100W AC Config 1 Secondary Power Supply North America AC Type A Power Cable 50CM Type 1 Stacking Cable Catalyst Stack Power Cable 30 CM  Catalyst 9300 48-port PoE+, Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port PoE IP Base C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage CAT9300 Universal image	146 18 26 0 0 1 26 1 26 26 52 26 26 52 26 0 0 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1
SFP-10G-LR= SFP-10G-SR=  C9300-48UXM-A  CON-SNT-WSC385US  C9300-DNA-A-48-7Y  C9300-NW-A  C9300-NM-8X  S9300UK9-165  PWR-C1-1100WAC  PWR-C1-1100WAC/2  CAB-TA-NA  STACK-T1-50CM  CAB-SPWR-30CM  C9300-48P-A  CON-SNT-WSC388PS  C9300-DNA-A-48-7Y  C9300-NW-A	10GBASE-LR SFP Module (SMF) (10KM) 10GBASE-SR SFP Module (MMF) (400m)  Catalyst 9300 48-port(12 mGig&36 2.5Gbps) Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port (12 mGig+36 C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage Catalyst 9300 8 x 10GE Network Module CAT9300 Universal image 1100W AC Config 1 Power Supply 1100W AC Config 1 Secondary Power Supply North America AC Type A Power Cable 50CM Type 1 Stacking Cable Catalyst Stack Power Cable 30 CM  Catalyst 9300 48-port PoE+, Network Advantage SNTC-8X5XNBD Cisco Catalyst 3850 48 Port PoE IP Base C9300 DNA Advantage, 48-port, 7 Year Term license Network Advantage	146 18 26 0 0 1 26 1 26 26 26 26 26 26 26 26 26 26

PWR-C1-715WAC/2	715W AC Config 1 Secondary Power Supply	10
CAB-TA-NA	North America AC Type A Power Cable	20
STACK-T1-50CM	50CM Type 1 Stacking Cable	10
CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	10
G. I.D. G. T. T. G. G. T. T. G. G. T. G. G. T. G. G. T. G.		
C9300-24UX-A	Catalyst 9300 24-port mGig and UPOE, Network Advantage	1
CON-SNT-WSC3852X	SNTC-8X5XNBD Cisco Catalyst 3850	0
C9300-DNA-A-24-7Y	C9300 DNA Advantage, 24-port, 7 Year Term license	1
C9300-NW-A	Network Advantage	1
S9300UK9-165	CAT9300 Universal image	1
C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
PWR-C1-1100WAC	1100W AC Config 1 Power Supply	1
PWR-C1-1100WAC/2	1100W AC Config 1 Secondary Power Supply	1
CAB-TA-NA	North America AC Type A Power Cable	2
STACK-T1-50CM	50CM Type 1 Stacking Cable	1
CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
C9300-24P-A	Catalyst 9300 24-port PoE+, Network Advantage	1
CON-SNT-WS-C384PS	SNTC-8X5XNBD Cisco Catalyst 3850 24 Port PoE IP Base	0
C9300-DNA-A-24-7Y	C9300 DNA Advantage, 24-port, 7 Year Term license	0
C9300-NW-A	Network Advantage	1
C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
S9300UK9-165	CAT9300 Universal image	1
PWR-C1-715WAC	715W AC Config 1 Power Supply	1
PWR-C1-715WAC/2	715W AC Config 1 Secondary Power Supply	1
STACK-T1-50CM	50CM Type 1 Stacking Cable	1
CAB-TA-NA	North America AC Type A Power Cable	2
CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
CAD SI WIL SOCIA	Catalyst stack i ower casic so civi	
C9500-40X-A	Cisco Catalyst 9500 40-port 10G switch, NW Adv. License	1
CON-SNT-WSC3854S	SNTC-8X5XNBD Cisco Catalyst 3850 24 Port 10G SFP+ IP Ba	0
C9500-DNA-L-A-7Y	C9500 DNA Advantage, 24-port, 7 Year Term license	0
C9300-NW-A	Network Advantage	1
C9500-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
S9500UK9-165	CAT9500 Universal image	1
PWR-C4-950WAC-R	950W AC Config 1 Power Supply	1
PWR-C4-950WAC-R/2	950W AC Config 1 Secondary Power Supply	1
STACK-T1-50CM	50CM Type 1 Stacking Cable	1
CAB-TA-NA	North America AC Type A Power Cable	2
CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
C9400-LC-48UX	48-port UPoE (24-ports 1 gig, 24-ports mGig)*	6
C9410R-96U-BNDL-A	Catalyst 9400 Series Chassis, 10-Slot Bundle, Sup-1, 2 x 48-port	2
	1gig UPoE	

C9400-DNA-A	Cisco Catalyst 9400 DNA Advantage Term License	0
C9400-DNA-A-7Y	Cisco Catalyst 9400 DNA Advantage 7 Year License	0
C9400-S-BLANK	Cisco Catalyst 9400 Series Slot Blank Cover	2
C9400-SUP-1-B	Cisco Catalyst 9400 Series Supervisor 1 Bundle Select Option	2
C9400-SUP-1	Cisco One Catalyst 9400 SUP1 (included in bundle)	2
C9400-SUP-1/2	Catalyst 9400 Redundant Supervisor 1 (SSO on 16.6.2 / Nov)	2
C9400-NW-A	Cisco Catalyst 9400 Network Advantage License (b/c sup)	4
S9400UK9-166	Cisco Catalyst 9400 XE 16.6 Universal image	2
C9400-LC-48U-B	Cisco Catalyst 9400 Series 2x C9400-48U for Bundle Select	2
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000 (included in bundle)	2
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000 (included in bundle)	2
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000	2
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000	2
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000	2
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000	2
C9400-PWR-3200AC	Cisco Catalyst 9400 Series 3200W AC Power Supply	12
CAB-L620P-C19-US	NEMA L6-20 to IEC-C19 14ft US (Locking type cord)	12
C9410R-96U-BNDL-A	Catalyst 9400 Series Chassis, 10-Slot Bundle, Sup-1, 2 x 48-port	1
	1gig UPoE	
C9400-DNA-A	Cisco Catalyst 9400 DNA Advantage Term License	0
C9400-DNA-A-7Y	Cisco Catalyst 9400 DNA Advantage 7 Year License	0
C9400-S-BLANK	Cisco Catalyst 9400 Series Slot Blank Cover	3
C9400-SUP-1-B	Cisco Catalyst 9400 Series Supervisor 1 Bundle Select Option	1
C9400-SUP-1	Cisco One Catalyst 9400 SUP1 (included in bundle)	1
C9400-SUP-1/2	Catalyst 9400 Redundant Supervisor 1 (SSO on 16.6.2 / Nov)	1
C9400-NW-A	Cisco Catalyst 9400 Network Advantage License (b/c sup)	2
S9400UK9-166	Cisco Catalyst 9400 XE 16.6 Universal image	1
C9400-LC-48U-B	Cisco Catalyst 9400 Series 2x C9400-48U for Bundle Select	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000 (included in bundle)	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000 (included in bundle)	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000	2
C9400-PWR-3200AC	Cisco Catalyst 9400 Series 3200W AC Power Supply	5
CAB-L620P-C19-US	NEMA L6-20 to IEC-C19 14ft US (Locking type cord)	5
C9410R-96U-BNDL-A	Catalyst 9400 Series Chassis, 10-Slot Bundle, Sup-1, 2 x 48-port	1
	1gig UPoE	
C9400-DNA-A	Cisco Catalyst 9400 DNA Advantage Term License	0
C9400-DNA-A-7Y	Cisco Catalyst 9400 DNA Advantage 7 Year License	0
C9400-S-BLANK	Cisco Catalyst 9400 Series Slot Blank Cover	0
C9400-SUP-1-B	Cisco Catalyst 9400 Series Supervisor 1 Bundle Select Option	1
C9400-SUP-1	Cisco One Catalyst 9400 SUP1 (included in bundle)	1
C9400-SUP-1/2	Catalyst 9400 Redundant Supervisor 1 (SSO on 16.6.2 / Nov)	1
C9400-NW-A	Cisco Catalyst 9400 Network Advantage License (b/c sup)	2
S9400UK9-166	Cisco Catalyst 9400 XE 16.6 Universal image	1
C9400-LC-48U-B	Cisco Catalyst 9400 Series 2x C9400-48U for Bundle Select	1

C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000 (included in bundle)	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000 (included in bundle)	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000	5
C9400-PWR-3200AC	Cisco Catalyst 9400 Series 3200W AC Power Supply	6
CAB-L620P-C19-US	NEMA L6-20 to IEC-C19 14ft US (Locking type cord)	6
C/15 20201 C13 C3	THE WINTED 20 to 120 CIS 1 Ht OS (LOCKING type cord)	
C9410R-96U-BNDL-A	Catalyst 9400 Series Chassis, 10-Slot Bundle, Sup-1, 2 x 48-port 1gig UPoE	1
C9400-DNA-A	Cisco Catalyst 9400 DNA Advantage Term License	0
C9400-DNA-A-7Y	Cisco Catalyst 9400 DNA Advantage 7 Year License	0
C9400-S-BLANK	Cisco Catalyst 9400 Series Slot Blank Cover	2
C9400-SUP-1-B	Cisco Catalyst 9400 Series Supervisor 1 Bundle Select Option	1
C9400-SUP-1	Cisco One Catalyst 9400 SUP1 (included in bundle)	1
C9400-SUP-1/2	Catalyst 9400 Redundant Supervisor 1 (SSO on 16.6.2 / Nov)	1
C9400-NW-A	Cisco Catalyst 9400 Network Advantage License (b/c sup)	2
S9400UK9-166	Cisco Catalyst 9400 XE 16.6 Universal image	1
C9400-LC-48U-B	Cisco Catalyst 9400 Series 2x C9400-48U for Bundle Select	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000 (included in bundle)	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000 (included in bundle)	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000	3
C9400-PWR-3200AC	Cisco Catalyst 9400 Series 3200W AC Power Supply	5
CAB-L620P-C19-US	NEMA L6-20 to IEC-C19 14ft US (Locking type cord)	5
C9410R-96U-BNDL-A	Catalyst 9400 Series Chassis, 10-Slot Bundle, Sup-1, 2 x 48-port 1gig UPoE	1
C9400-DNA-A	Cisco Catalyst 9400 DNA Advantage Term License	0
C9400-DNA-A-7Y	Cisco Catalyst 9400 DNA Advantage 7 Year License	0
C9400-S-BLANK	Cisco Catalyst 9400 Series Slot Blank Cover	0
C9400-SUP-1-B	Cisco Catalyst 9400 Series Supervisor 1 Bundle Select Option	1
C9400-SUP-1	Cisco One Catalyst 9400 SUP1 (included in bundle)	1
C9400-SUP-1/2	Catalyst 9400 Redundant Supervisor 1 (SSO on 16.6.2 / Nov)	1
C9400-NW-A	Cisco Catalyst 9400 Network Advantage License (b/c sup)	2
S9400UK9-166	Cisco Catalyst 9400 XE 16.6 Universal image	1
C9400-LC-48U-B	Cisco Catalyst 9400 Series 2x C9400-48U for Bundle Select	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000 (included in bundle)	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000 (included in bundle)	1
C9400-LC-48U	Catalyst 9400 48-Port UPOE 48p 10/100/1000	1
C9400-PWR-3200AC	Cisco Catalyst 9400 Series 3200W AC Power Supply	4

# **Implementation Services:**

We require professional services to implement the following equipment. The winning vendor will work with the Information Technology Department on configuring details of this equipment.

All C6807-XL switches – Configure switches as a virtual switching system (VSS).

All C6816-X-LE switches – Configure switches as a virtual switching system (VSS).

APIC-EM-APL-R-K9=

UCS-SP-5108-AC3 system – Configure UCS chassis and fabric interconnects as well as reconfigure existing Nexus 5548 switches.

Use APIC-EM to provision and support all Catalyst switches under Software Defined Network Architecture.